Research Product 2006-01

Select21 Experimental Selection and Classification Instruments

Human Resources Research Organization

October 2005   **20051121 026**

Selection and Assignment Research Unit

**United States Army Research Institute
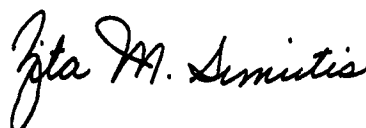for the Behavioral and Social Sciences**

**U.S. Army Research Institute
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NOTICES

REPORT DOCUMENTATION PAGE

1. REPORT DATE (dd-mm-yy) October 2005	2. REPORT TYPE Interim	3. DATES COVERED (from. . . to) September 2002 – February 2005	
4. TITLE AND SUBTITLE Select21 Experimental Selection and Classification Instruments		5a. CONTRACT OR GRANT NUMBER DASW01-03-D-0015/DO #6	
		5b. PROGRAM ELEMENT NUMBER 62785	
6. AUTHOR(S) Human Resources Research Organization		5c. PROJECT NUMBER A790	
		5d. TASK NUMBER 257	
		5e. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Human Resources Research Organization 66 Canal Center Plaza, Suite 400 Alexandria, VA 22314		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U. S. Army Research Institute for the Behavioral & Social Sciences 2511 Jefferson Davis Highway Arlington, VA 22202-3926		10. MONITOR ACRONYM ARI	
		11. MONITOR REPORT NUMBER Research Product 2006-01	

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution is unlimited.

13. SUPPLEMENTARY NOTES
Contracting Officer's Representative and Subject Matter POC: Dr. Trueman Tremble

14. ABSTRACT *(Maximum 200 words)*: Transformation of the U.S. Army into the Future Force involves changes to missions, systems, and organizational structures. To realize the full potential of transformation, the Army must have the means to select and to assign high quality individuals who, as first-term Soldiers, can meet the training and operational demands emerging with transformation to the Future Force.

This report is part of a series of research product reports that provide to potential users information on products resulting from a project titled *New Predictors for Selecting and Assigning Future Army Soldiers (Select21)*. The goal of Select21 is to (a) develop and validate new performance predictor measures and (b) propose use of the most promising measures as a foundation for an entry-level selection and classification system adapted to the demands of the 21st century.

This report describes the experimental selection and classification instruments. In the Select21 project, Soldiers' scores on these instruments will be linked to their scores on job performance measures to evaluate how well these instruments might forecast future job performance. Instruments that show promise for predicting job performance could supplement the Army's current selection and classification test battery (i.e., the ASVAB, the Armed Services Vocational Aptitude Battery) in the future.

15. SUBJECT TERMS
Selection and Classification   Futuristic Job/Task Analysis   Job/Task Performance Requirements
Personnel Testing   Performance Measurement

			19. LIMITATION OF ABSTRACT	20. NUMBER OF PAGES	RESPONSIBLE PERSON Ellen Kinzer Technical Publication Specialist (703) 602-8047
16. REPORT Unclassified	17. ABSTRACT Unclassified	18. THIS PAGE Unclassified	Unlimited	23	

Research Product 2006-01

Select21 Experimental Selection and Classification Instruments

Human Resources Research Organization

Selection and Assignment Research Unit
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2511 Jefferson Davis Highway, Arlington, Virginia 22202-3926

October 2005

The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) conducts research to support Army personnel and training goals. In recognition of the changes emerging with the Army's transformation, ARI developed a research program to identify, describe, and address future personnel requirements. This report describes an aspect of an ongoing ARI project, called Select21, concerned with future enlisted Soldiers.

The objective of this project is to provide personnel tests for selecting and assigning entry-level Soldiers to future jobs. This report is part of a series of Product Reports summarizing interim outcomes of this ongoing project.

- ☐ Future job clusters – February 2005 (Research Product 2005-04)
- ☐ Future Army-wide Soldier performance requirements – March 2005 (Research Product 2005-05)
- ☐ Soldier job performance measurement tools – August 2005 (Research Product 2005-07)
- ☑ Select21 experimental selection and classification instruments – October 2005
- ☐ Select21 validation results and recommendations

This report describes the experimental selection and classification instruments. In the Select21 project, Soldiers' scores on these instruments will be linked to their scores on job performance measures to evaluate how well these instruments might forecast future job performance. Instruments that show promise for predicting job performance could supplement the Department of Defense's current selection and classification test battery (i.e., the Armed Services Vocational Aptitude Battery [ASVAB]) for the Army in the future.

Project Select21 is being conducted with support from the Army G-1, Deputy Chief of Staff for Personnel, and from the Army Training and Doctrine Command (TRADOC). ARI has briefed these sponsors, as well as representatives of other offices to include the Army Accessions Command, Human Resources Command, and the Army G-3, Deputy Chief of Staff for Operations. Research sponsors have provided the support and guidance needed for the success of the research.

MICHELLE SAMS
Technical Director

What is Project Select21?

The U.S. Army has undertaken far-reaching changes to transform the current force into one that is more responsive, deployable, agile, versatile, and lethal while being fully survivable and sustainable under all conditions. *New Predictors for Selecting and Assigning Future Force Soldiers (Select21)* is an Army research project focused on the personnel system by which the Army selects entry-level Soldiers and assigns these Soldiers to jobs. Select21 is designed to help ensure that through this system, the Army will acquire new Soldiers with the knowledges, skills, and attributes (KSAs) needed for performing the types of tasks emerging as part of the transformation. More specifically, the objectives of Select21 are to develop measures of these KSAs and to evaluate their potential for integration into the Army's personnel acquisition system.

Figure 1 shows a schematic overview of the Select21 project. To understand how well the experimental selection and classification tests work, we are comparing how well Soldiers perform on these tests with how well these same Soldiers perform their jobs. Select21 will use a "concurrent validation" design. With this design, researchers are administering the experimental tests to a sample of Soldiers with 18 to 36 months time in service and, at the same time, assessing the Soldiers' job performance by using specially designed indicators, called *criterion* measures.
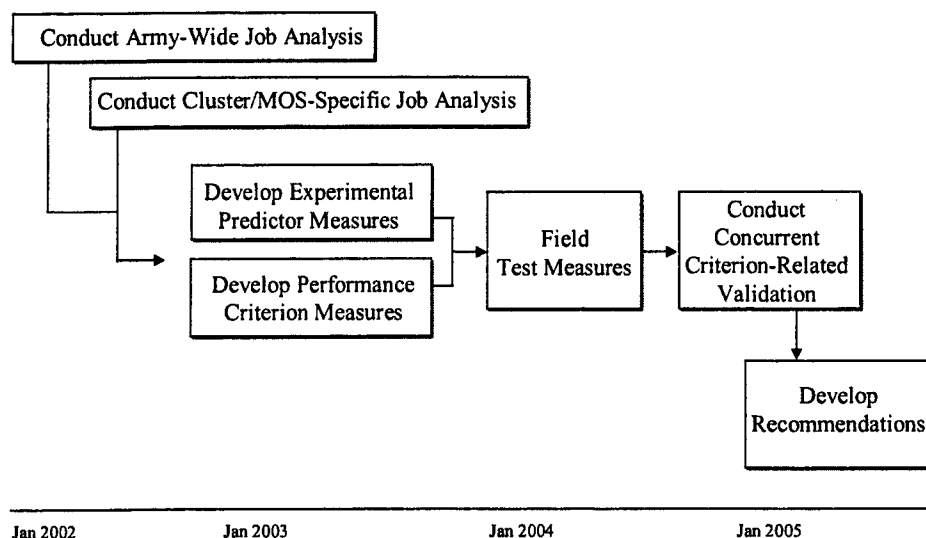
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Jan 2002        Jan 2003         Jan 2004          Jan 2005
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Figure 1. Schematic of the Select21 project plan.

What is this report about?

This report describes the experimental selection and classification instruments developed in Select21. The main purpose is to acquaint Army readers with the purpose, content, and format of these instruments by presenting descriptions, examples, and a brief overview of the development process.

Experimental Selection and Classification Instruments

A fundamental goal of the Select21 project is to develop experimental selection and classification measures that will (a) predict performance for entry-level Soldiers in the Future Force and (b) add "incremental validity" over the current system as embodied by the Armed Services Aptitude Battery (ASVAB). "Incremental validity" means that a new measure can predict performance *over and above* what we can achieve with the already available ASVAB. This is a difficult goal, since there is a great deal of research documenting the strong predictive validity of the ASVAB. Toward those ends, the Select21's experimental selection and classification instruments were designed to measure KSAs that are not already measured by the ASVAB but are expected to be important in the Future Force.

The experimental selection and classification instruments include the following:

- Rational Biodata Inventory (RBI)
- Work Suitability Inventory (WSI)
- Psychomotor Tests
- Predictor Situational Judgment Test (PSJT)
- Record of Pre-Enlistment Training and Experiences (REPETE)
- Work Values Inventory (WVI)
- Work Preferences Survey (WPS)
- Career Exploration Program (CEP) Interest Inventory
- Army Beliefs Survey (ABS)
- Pre-Service Expectations Survey (PSES)
- Army Work Knowledge Survey (AWKS)

The experimental selection and classification instruments have been finalized in preparation for collecting concurrent validation data in FY05. For test security reasons some of the measures cannot be released in their entirety. The following pages provide descriptions and examples for each of the instruments. Following this presentation is a brief description of how the instruments were developed.

Rational Biodata Inventory (RBI)

The Rational Biodata Inventory (RBI) is designed to measure motivational/temperament characteristics identified as important to entry-level Soldier performance in the Army's future force. The RBI incorporates biodata scales from several existing Army tests designed to predict job performance and counterproductive tendencies. These existing tests are used, for example, for selecting Special Forces Soldiers.

The RBI consists of 90 "biodata" items and takes 30 minutes to administer. Biodata items ask about past behavior and reactions to previous life events (e.g., "to what extent have you enjoyed thinking about the plusses and minuses of alternative approaches to solving a problem"). The RBI items are written specifically to tap important motivational and temperament characteristics such as the following:

- *Achievement Orientation:* Working hard and giving one's best effort

- *Cognitive Flexibility:* Willingness to try new ways of getting work done. Embracing innovation and change. Comfort with uncertainty and ambiguity.

- *Peer Leadership:* Comfort with taking the initiative. Willing to make tough decisions and accept responsibility for the group's performance.

- *Cultural Tolerance:* Willingness to accept and work closely with those from other cultural/religious/ethnic backgrounds.

Following is an example of a rational biodata item:

How often have you put off doing a chore that you could have taken care of right away?

    A. Very often
    B. Often
    C. Sometimes
    D. Seldom
    E. Never

Work Suitability Inventory (WSI)

The Work Suitability Inventory (WSI) uses a self-report format to determine the types of work that respondents believe they would perform best. The WSI differs from many other tests in that it asks respondents to sort statements rather than answer questions. Specifically, this computerized measure asks respondents to sort 16 statements describing different types of work requirements. Figure 2 shows an example of two of the statements that appear on the WSI.

Each statement appears on its own rectangular block, or "card." Respondents must rank the 16 statements in terms of how successful they think they would be at performing each type of work described—the highest ranked statement should describe work that respondents think they would be most successful at, and the lowest ranked statement should describe work that respondents think they would be least successful at. To rank the computerized "type of work" cards, respondents use the mouse to position the cards on spaces labeled 1 (Most Successful) through 16 (Least Successful) (see Figure 2). Respondents have 12 minutes to complete the WSI.

An important feature of the WSI lies in its scoring approaches. The Army can score the WSI differently for each outcome of interest (e.g., job performance, attrition, person-Army fit). Unlike conventional tests having correct answers or a single set of keyed answers, no single ordering of the 16 cards will likely predict all outcomes of interest—a ranking that yields a high score on one outcome may well yield a low score on other outcomes. Therefore, respondents' attempts to rank the statements the way they think the Army would like (rather than ranking them in the way that best describes themselves) will not be successful. As such, the WSI should be resistant to response distortion, which happens when a respondent tries to answer questions to give the most favorable impression possible rather than to be most accurate.
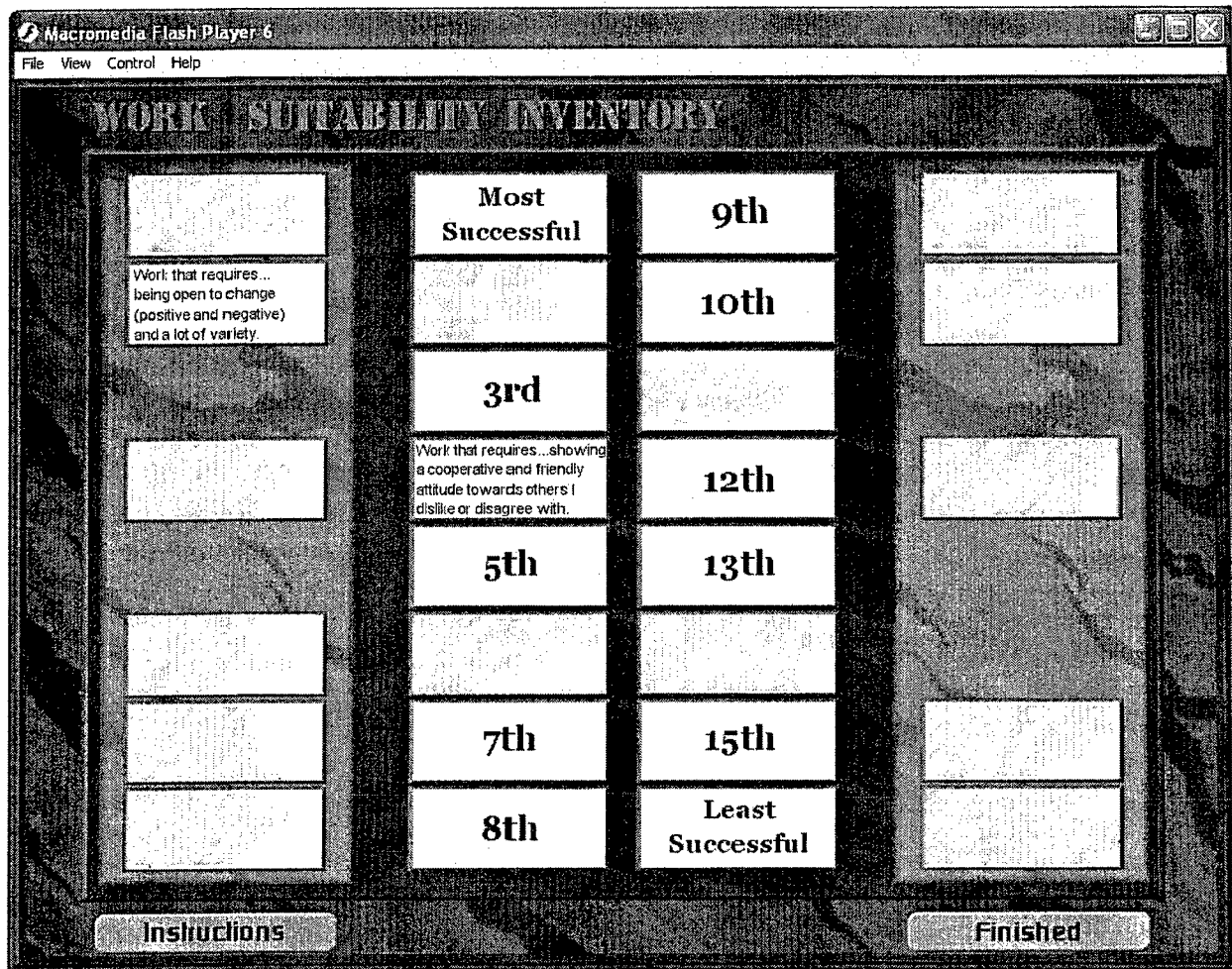
Figure 2. Screenshot of partial sorting of statements from the Work Suitability Inventory.

Psychomotor Tests

There is good reason to expect that tests of psychomotor ability might improve upon the validity of the ASVAB for predicting certain aspects of future job performance in entry-level Army MOS. Prior research has shown psychomotor tests to be good predictors of gunnery performance and certain other job performance criteria. Additionally, the Select21 job analysis data suggested that psychomotor skills were more important for performance in Close Combat jobs and therefore might be useful for classification purposes.

The Select21 psychomotor tests—Target Tracking and Target Shoot—were adapted from an earlier Army research project. They are designed to measure a person's ability to adjust or position a machine control mechanism precisely. For both tests, the respondent uses a joystick to track a target. Both tests are administered on an IBM Thinkpad computer, and together they take approximately 25 minutes to administer.

Target Tracking Test

On each item of the test, a path consisting of vertical and horizontal line segments is presented. A sample item is shown in Figure 3. A target box appears at the beginning of the path. As the item begins, the target starts to move along the path at a constant rate of speed. The respondent's task is to keep the crosshair centered within the target at all times using a joystick to control movement. The respondent's score on this test indicates how accurately he or she tracked the target (i.e., the average distance from the center of the crosshair to the center of target across all items). The Target Tracking Test contains three practice and nine scored items.

Target Shoot Test

At the beginning of an item on this test, a crosshair appears in the center of the screen and a target box appears at some other location on the screen, as shown at the top of Figure 4. The target then begins to move around the screen in an unpredictable manner, frequently changing direction. The respondent controls movement of the crosshair using a joystick. The respondent's task is to move the crosshair into the center of the target and press a red button on the joystick to "fire" at the target. If successful, a "hit" is displayed as shown in the lower half of Figure 4. The respondent must do this before the time expires on each item. The respondent receives two scores on this test—a speed score and an accuracy score. The speed score is the average time elapsed from the beginning of the item until the respondent fired at the target. The accuracy score is the average distance from the center of the crosshair to the center of the target at the time the respondent fired at the target. The Target Shoot Test contains 3 practice and 52 scored items.
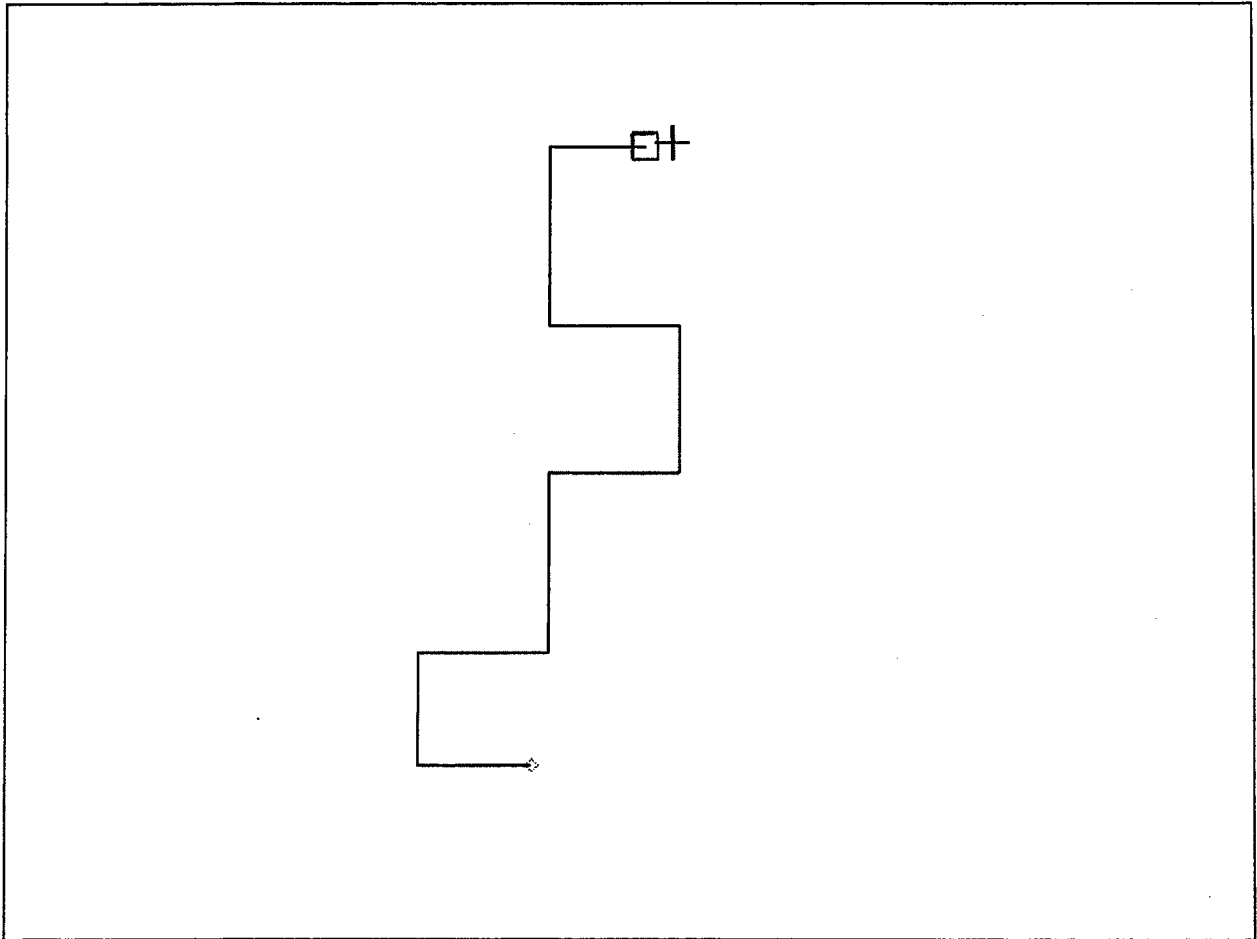
Figure 3. Example Target Tracking Test item.
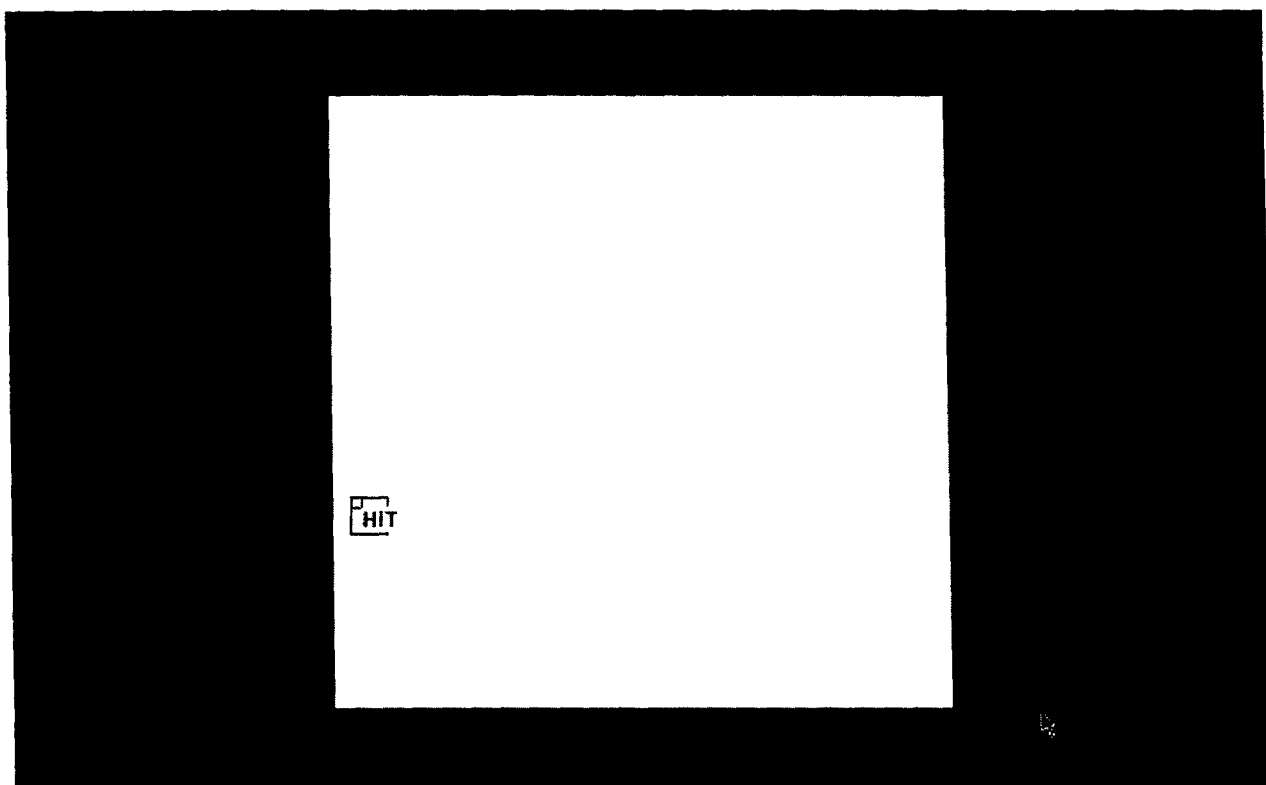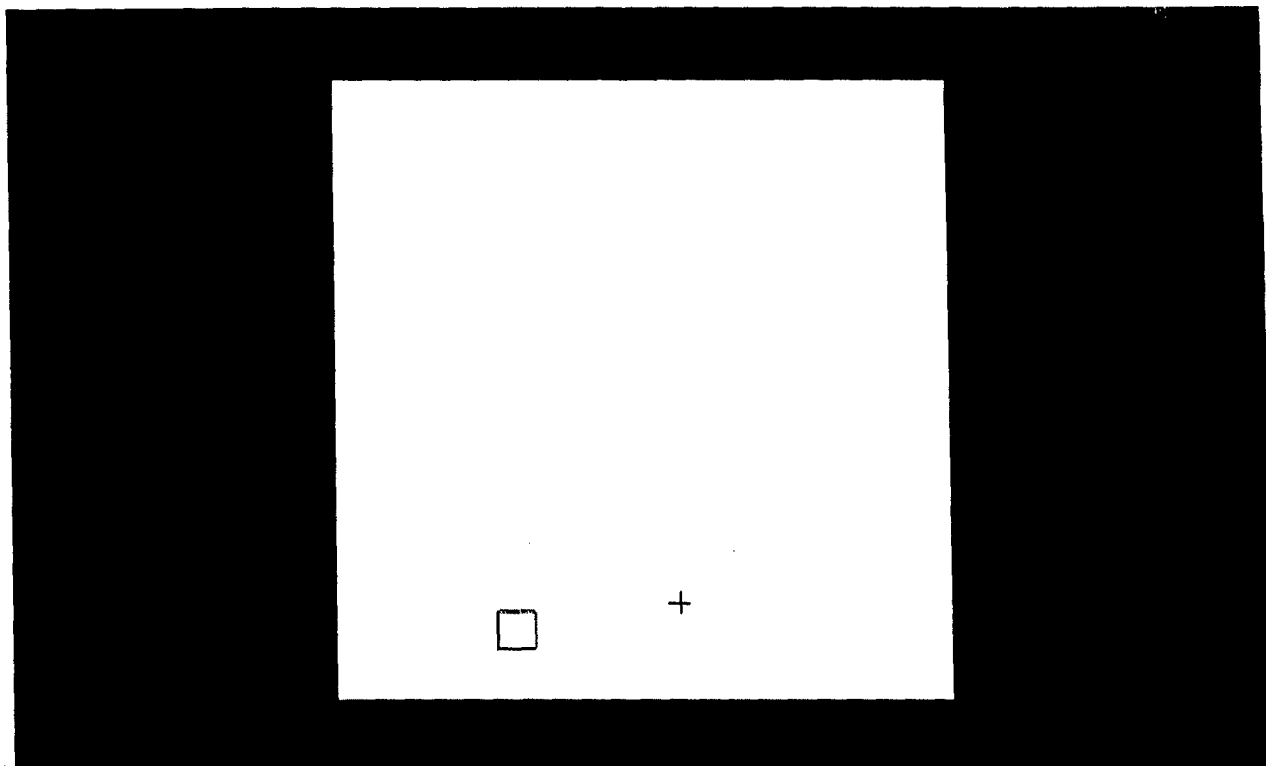
Figure 4. Example Target Shoot Test item.

Predictor Situational Judgment Test (PSJT)

Situational Judgment Tests have become very popular in recent years because they have shown good validity for predicting job performance and incremental validity over general cognitive ability measures like the ASVAB. The purpose of Select21's PSJT is to predict future first-term Soldier job performance by simulating situations an individual Soldier faced prior to enlistment as a Soldier. Each item consists of a description of a problem situation and a list of four alternative actions that a person might take in that situation. A sample item is shown below.

Instructions: You are to rate the effectiveness of each action using a 1–7 rating scale, where 7 is highly effective and 1 is completely ineffective. Imagine that you are in the situation; use the scale to indicate how effective or ineffective you believe each action to be.

Sample Item: You are a student working on a group project with your classmates. You are approaching your deadline and the project is not complete. One member of the group offers to take the project home and complete it over the weekend. How effective is each of the following actions you could take?

    a. Offer to take the project home and finish it instead of the other student taking it home.

    b. Plan a day for all the group members to get together and work on the project.

    c. Ask the student if he/she needs help.

    d. Let the student take it home and complete the project.

The PSJT measures a respondent's judgment in civilian situations that are similar to military situations experienced by Soldiers during their first few months in the Army. During the development of the test, non-commissioned officers (NCOs) were asked to write actual situations that Soldiers have experienced during their first few months in the Army. For each of these military situations, Soldiers in training and civilians wrote civilian situations that paralleled the military situation. In most cases, the situation involved either a student at a civilian school or an employee at a civilian organization. The test development process had several rounds of writing, editing, pilot testing, and analysis.

PSJT Items were written to specifically target the following areas:

- Adaptability to Changing Conditions
- Effective Self-Management
- Effective Self-Directed Learning
- Relating to and Supporting Peers
- Teamwork

The concurrent validation version of the PSJT contains 26 items and takes about 45 minutes to administer.

Record of Pre-Enlistment Training and Experiences (REPETE)

Historically, the Army has taken the burden of training all required entry-level job skills for its enlisted personnel. It stands to reason that recognizing prior related training and/or experience could benefit the Army by reducing training requirements (or at least helping to ensure success in training) and benefit applicants by enhancing their enlistment options (in terms of job choices and/or enlistment bonuses).

The development of the Record of Pre-Enlistment Training and Experience (REPETE) was a demonstration effort—one designed to illustrate what kind of instrument might be developed and how it might be used. The demonstration effort focused on computer skills because computer skills are somewhat important for all MOS, particularly important for some MOS, and not addressed directly on the ASVAB.

The REPETE is a self-report measure designed to determine the type of training and experience that entry-level Soldiers currently bring with them to the Army. It focuses on the following 10 computer skill categories:

1.	Word Processing/Desktop Publishing Software—Create, manipulate, format, and print documents.
2.	Spreadsheet Software—Record, format, sort, analyze, and graph information.
3.	Database Software—Create, query, organize, analyze, graph, and report databases.
4.	Presentation/ Graphics Software—Create presentation-quality slides or graphics.
5.	Internet Usage and Information Search—Send, receive, and save email; search the Internet.
6.	Basic Hardware and Operating Systems—Manage own PC files and folders using the operating system and hardware.
7.	Networking and Computer Service Support—Install, initialize, configure, and manage network software.
8.	Computer Programming Principles—Develop algorithms, select programming languages, design program, use assembly language, and develop documentation.
9.	Basic Web Programming—Develop web pages using HTML and Javascript.
10.	Object-Oriented Programming Concepts—Create Object-Oriented Modeling using UML notation; use C++, Java, or Visual Basic.

The REPETE has three parts, each with multiple items. In the first part, respondents are asked to list courses they have taken related to computer skills and to indicate which of the 10 computer skills categories were addressed in each course. The second part is structured similarly but asks about certifications. The last part asks respondents to rate themselves on each of 10 computer skill categories using a 5-point level-of-mastery rating scale.

Because the REPETE is not a predictor in the traditional sense and because it would require Soldiers to try to recall their pre-enlistment status with regard to the questions, it will not be included in the concurrent validation effort. With additional research, however, the REPETE could be could be expanded and used to give credit for a broad range of pre-enlistment skills and experience. Such a tool would supplement the current Army Civilian Acquired Skills Program (ACASP), which already offers enlistment bonuses, accelerated promotions, and/or abbreviated training for those enlistees who meet certain MOS-specific skills or certification criteria.

Work Values Inventory (WVI)

People tend to value different things when it comes to work (e.g., physical activity, autonomy). Similarly, organizations, such as the Army, tend to vary in the degree to which they offer characteristics of work that individuals' value. The purpose of the Work Values Inventory is to assess respondents' preferences for various characteristics of work (e.g., On my ideal job, I would make decisions on my own). It is based on the premise that not all respondents value characteristics of work offered by the Army, and that a disconnect between what respondents value and what the Army offers can lead to undesirable outcomes. Specifically, past research suggests that individuals who value work characteristics that their organization provides are more satisfied and more likely to remain in the organization than those who value characteristics not provided by their organization.

The WVI is a computerized assessment that yields an ordering of 28 work characteristics in terms how important they would be in their ideal job, and distinguishes between important and unimportant characteristics (in an absolute sense). To make the rank ordering activity easier, respondents are first asked to sort the 28 work characteristics into four categories of varying importance (A-D). For example, respondents place their seven most important work characteristics in Category A and their seven least important work characteristics in Category D. Respondents then rank order the importance of the work characteristics within each category. After completing their rankings within each category, respondents are presented with the full list of 28 work characteristics in the order they ranked them. Respondents are asked to review the list and to make a line through it such that the work characteristics important for their ideal job are above the line and the characteristics below the line are unimportant to have on their ideal job.

The WVI takes about 25 minutes to administer. Once a respondent completes the WVI, the Army can assess the similarity of his or her preferences for various work characteristics with what the Army actually offers.

Work Preferences Survey (WPS)

Occupations can be categorized into six types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Individuals vary in the degree to which they are interested in these types of occupations. Research has shown that people are drawn to occupations that they think will satisfy their interests. For example, people who are creative and expressive tend to seek out Artistic occupations. Studies have also found that a good match between an individual's interests and the interests that his or her chosen occupation supports can lead to a variety of positive outcomes for both the worker and the organization. For the worker, a good match in terms of interests can result in higher job satisfaction. For the organization, more satisfied workers tend to work harder and are less likely to attrit.

The Work Preferences Survey was designed to assess potential recruits' preferences for these six types of occupations. Respondents are asked to rate their interest in various work activities, work environments, and learning opportunities that reflect these occupations. The Army can then compare the interests of each respondent to the interests the Army supports to assess the match between the two. The current version of the Work Preferences Survey has 75 items and takes about 20 minutes to complete. Figure 5 shows the instructions for the instrument and three items that are similar to those that appear on the actual survey.

Instructions: The purpose of this survey is to find out what your ideal job would be like. Please read each statement. Then, using the scale below, indicate how important each statement is to your ideal job.

1	2	3	4	5
Extremely unimportant to have in my ideal job	Not important to have in my ideal job	Not important or unimportant to have in my ideal job	Important to have in my ideal job	Extremely important to have in my ideal job

Sample Statements

1. A job that requires me to repair broken machinery.
2. A job in which I work by myself most of day.
3. A job in which I can learn more about running a business.

Figure 5. Sample Work Preferences Survey items.

Career Exploration Program (CEP) Interest Inventory

The Defense Manpower Data Center (DMDC) maintains an instrument to help high school students identify their career interests. The recently revised version of this tool, the Career Exploration Program (CEP) Interest Inventory, is similar to the Select21-developed Work Preferences Survey (WPS) but was designed for counseling rather than for selection and classification decision-making[1].

Both the WPS and CEP Interest Inventory measure an individual's vocational interest needs. We have included the CEP in our research because it is highly useful for measuring occupational interests for purposes of career counseling and may also prove useful for selection and classification.

On the CEP Interest Inventory, respondents are asked to rate their interest in various activities that reflect these occupations. The Army can then compare the interests of each respondent to the interests the Army supports to assess the match between the two. The inventory includes 93 items and takes about 15 minutes to administer. Figure 6 shows abbreviated instructions for the instrument and three sample items.

Instructions: For each of the activities in the inventory, ask yourself if you would like or dislike doing that activity. In answering, don't be concerned about how well you would do any activity or whether you have the experience or training to do it. Just think about how much you would like or dislike doing the activity and select an answer from the following responses:

1	2	3
Like	**Indifferent**	**Dislike**
I would like to do this activity	I don't care one way or the other	I would not like to do this activity

Sample Statements

1. Argue a case in court.
2. Fly an airplane.
3. Help raise money for a charity.

Figure 6. Sample Career Exploration Survey Interest Inventory items.

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[1] Department of Defense (1999). *Technical Manual for the ASVAB 18/19 career exploration program* (DOD 1304.12-L-AST-TS). North Chicago, IL: USMEPCOM.

Expectations Measures

The last three experimental measures are based on the premise that not all applicants have accurate beliefs about what it is like to be in the Army, and that inaccurate beliefs can lead to undesirable outcomes. Specifically, past research suggests that people who have accurate beliefs about the organization to which they are applying tend to be more satisfied and less likely to attrit than those with less accurate beliefs. Each of the three instruments—Army Beliefs Survey, Pre-Service Expectations Survey, and Army Work Knowledge Survey—was based on content from previously described measures. In each of these measures, respondents are asked to indicate the extent to which each statement is descriptive of the Army environment. Responses are compared to the answers given by a sample of experienced NCOs. Because they concerned pre-service phenomena, they are not appropriate for administration to people already in the Army and therefore are not be included in the Select21 concurrent validation data collection.

Army Beliefs Survey (ABS)

The Army Beliefs Survey (ABS) assesses respondents' knowledge about what work in the Army involves. The content of the ABS parallels the content of the Work Values Inventory, except it has a couple extra items for a total of 30. The survey takes about 10 minutes to complete.

Figure 7 shows examples of what items on this survey look like. When a respondent completes this survey, the Army can assess the similarity of respondent's beliefs with the reality of Army life for first-term Soldiers.

Instructions: Using the rating scale below, indicate which category you believe best describes each statement.

Few Will Experience	Some Will Experience	Most Will Experience
This statement describes an experience *few* Soldiers will have during their first enlistment.	This statement describes an experience *some, but not most* Soldiers will have during their first enlistment.	This statement describes an experience *must* Soldiers will have during their first enlistment.

Sample Statements

1. Soldiers will improve their physical fitness.
2. Soldiers will make decisions on their own.

Figure 7. Sample Army Beliefs Survey items.

Pre-Service Expectations Survey (PSES)

The two interest measures described previously (the Work Preferences Survey and CEP Interest Inventory) assess the respondents' degree of interest in each of six occupational areas (e.g., Artistic, Social). In contrast, the Pre-Service Expectations Survey (PSES) assesses the extent to which respondents believe the Army will provide work activities and training opportunities associated with each area. The Army can then determine how closely respondents' expectations match the realities of Army work.

Individuals completing the PSES are asked to read a brief description of each of the six work settings listed above and then rate the extent to which they think each type describes the Army work environment. The instrument consists of 24 statements (four items for each type of work setting) that respondents rate on a 5-point agreement scale. The PSES takes about 20 minutes to administer.

Army Work Knowledge Survey (AWKS)

The Army Work Knowledge Survey (AWKS) lists the same 16 statements that appear on the Work Suitability Inventory. Respondents indicate the extent to which they agree with each statement using a 5-point scale. Following is a sample AWKS statement:

*Work as a first term Soldier in the Army often requires showing a
cooperative and friendly attitude towards others I dislike or disagree with.*

The AWKS takes about 5 minutes to administer.

Overview of the Instrument Development Process

A fundamental goal of the Select21 instrument development process was to generate experimental selection and classification measures that will (a) predict performance for entry-level Soldiers in the Future Force and (b) add incremental validity over the current system as embodied by the Armed Services Aptitude Battery (ASVAB). The development process took about 2 years and involved five major stages, as outlined below.

Job Analysis - Identification of Pre-Enlistment Knowledges, Skills, and Attributes (KSAs). The Select21 job analysis team reviewed military and civilian research literature to form a comprehensive master list of 48 human attributes that have been identified and measured reliably in the major domains of human performance. The master list was reviewed by psychologists. In turn, an Army subject matter expert panel and psychologists familiar with Army MOS rated the importance of the KSAs for future performance. Those ratings identified the KSAs that are most likely to be needed in the future. The results of this job analysis procedure are detailed in the second Product Report in this series: *Future Army-Wide Soldier Performance Requirements.*

The Measurement Plan. Select21's objective was to develop new measures that would cover the important KSAs as comprehensively and efficiently as possible within practical constraints on administrative feasibility. The job analysis defined the KSAs that needed to be measured, and we focused on the KSAs not already covered well by the ASVAB. We also omitted physical ability KSAs such as strength or endurance because these would have required physical testing, which is outside of ARI's mission. Based on prior research, Select21 researchers identified selection and classification instruments that were feasible to develop and likely to measure the target psychological KSAs reliably.

Instrument Development: The different selection and classification instruments had varying developmental needs. The development of some instruments required extensive input from Army personnel, while others required considerably less. For example, development of the PSJT involved numerous workshops with Soldiers in training, drill sergeants, and training instructors. The psychomotor tests which were adapted from prior Army research were reprogrammed with little need for input from the field. Each instrument was developed in accordance with its particular development requirements.

Pilot Testing and Faking Research: Nearly 2,000 new recruits in Army reception battalions participated in either pilot testing or a "faking" research effort. The purpose of pilot testing was to administer early versions of the instruments and collect preliminary information about how they were working. In the faking research data collection, we administered predictors potentially subject to response distortion or coaching under various conditions (e.g., respond honestly, make yourself look good but try not to get caught) to get an understanding of how they might function in an operational setting. Although the Army would not condone coaching applicants how to look good on the tests, self-report measures such as these are inherently vulnerable when used for high stakes decision-making.

Field Testing: The purpose of the field test was to finalize instrument content and administration procedures in preparation for the concurrent validation planned for 2005. A total of 690 new recruits participated in the field test.

Validation Plans

The experimental predictors and job performance criteria (described in a companion report in this series, *Soldier Job Performance Measurement Tools*) are being administered to Soldiers in a "concurrent validation" effort in 2005. This will be an important test for the predictors, showing which are related to job performance and which provide predictive validity over and above that which can be achieved with ASVAB alone.

Some of the experimental predictors also show promise for predicting who will attrit from the Army prior to completion of their first enlistment term. Data were collected from a fairly large number of new recruits as part of the instrument development process. Researchers are tracking the separation status of these Soldiers to help determine the extent to which some of the experimental tests predict attrition from training and in-unit attrition.

Other Applications

The Select21 predictor tests were designed for use in initial selection and classification decision-making. It is certainly the case, however, that some of the measures could be administered immediately post-enlistment (e.g., for post-enlistment classification or counseling).

Many of the experimental predictors developed in this project are generic enough to be potentially usable by all the U.S. Armed Services. Indeed, just as with the ASVAB, there are efficiencies to be gained by using the same tests across services. Accordingly, information about these tests has been shared in the joint service community and this dialogue will continue as we learn more about how they function in the Army setting.

Who is involved in this work?

Select21 research and products will ultimately result in recommendations to the Assistant Secretary of Defense for Manpower and Reserve Affairs. The offices sponsoring this project are the Army G-1 and the Training and Doctrine Command (TRADOC). The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is conducting the research, largely through work performed under contract to the Human Resources Research Organization (HumRRO).

How to contact us and for more information

Your reactions and suggestions for these Product Reports are important and we solicit input and participation in the Select21 project. We also will try to answer any questions you might have. If you have any input or want to learn more about Select21 and its current status, please contact:

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